**DESCRIPTION OF A STUDY COURSE – SYLLABUS**

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| **Title of a course** | **Winemaking II** | | | | |
| **Study programme** | **Professional undergraduate study Winemaking** | | | | |
| **Status of a course** | Obligatory | | | | |
| **Year of study** | 2. | **Semester** | W | **ECTS credits** | 7 |
| **Goals of a course** | | | | | |
| By mastering the course material, students are able to link the biochemical process and microbiological impact on alcoholic fermentation and carry out the stabilization and finalization of wine. | | | | | |
| **Conditions for enrolling course** | | | | | |
| No conditions | | | | | |
| **Learning outcomes on a level of a study programme which includes course** | | | | | |
| Outcome 5: Interpret the role of microorganisms and apply adequate cultures in wine production.  Outcome 6: Analyse the basic chemical composition of grape must and make corrections of crushed grapes, grape must and wine.  Outcome 8: Apply the appropriate vinification technology for white, rose and red wine with monitoring and determining technological processes, and carry out physic-chemical and biological stabilization of wine.  Outcome 9: Finalize the wine by selecting the appropriate equipment and packaging and bottling the wine. | | | | | |
| **Expected learning outcomes on a level of a course** | | | | | |
| 1. Explain the importance of individual groups of chemical constituents in grapes, grape must and wine and interpret their characteristics 2. Perform independent wine vinification. 3. Perform chemical analysis of grape must and basic chemical analysis of wine. 4. Perform physical, chemical and biological stabilization of wine. 5. Select the appropriate wine filtration process. 6. Choose the appropriate wine bottling equipment and packaging. 7. Use the legislation (Act and Regulations on wine). | | | | | |
| **Content of a course** | | | | | |
| Alcoholic fermentation: chemise of fermentation, primary and secondary products of fermentation, more important representatives of yeasts, selected yeasts, activation of yeasts, yeast nutrition. Malolactic fermentation: changes of chemical composition and sensor characteristics of wine, influences on quality, provoking and preventing malolactic fermentation. Care and maturation of wine (inox, wood), wine protection - SO2, ascorbic acid, inert gases, infusion, racking. Oxido-reproduction processes of wine: oxidation, redox potentials, oxidation and redox potential. Wine deposits: iron, copper, tartars, proteins. Wine stabilisation: stabilisation of proteins, stabilisation of tartars, stabilisation of deposited metals, biological stabilisation. Wine clarification: purpose of clarification, types of clarifying agents (organic and mineral), application, trials, ways of adding. Filtering and centrifuging: filters (panel, deposit, membrane and cross-flow), centrifuges. Bottling: preparation of wine for bottling, bottling equipment, types of bottling machines and corking machines, corks. | | | | | |
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